

DESCRIPTION

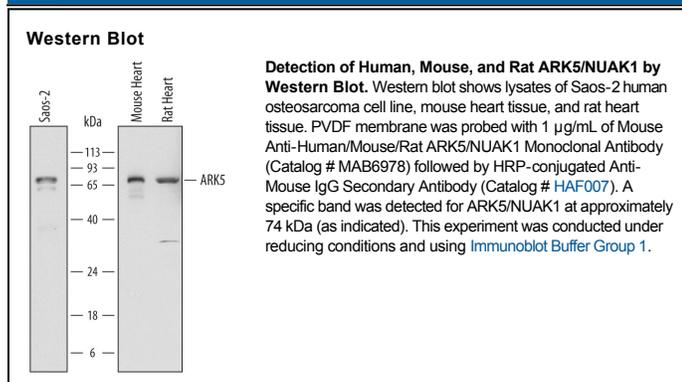
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human ARK5/NUAK1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human SNARK is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 715901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human ARK5/NUAK1 Lys311-Met462 Accession # O60285
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AMPK-related kinase 5 (ARK5), also known as NUAK1, is a 74 kDa intracellular Ser/Thr kinase that promotes cell survival during nutrient deprivation and TNF family ligand-induced apoptosis. ARK5 is activated by Akt, NDR2, and LKB1-mediated phosphorylation at multiple serine and threonine residues. It inhibits the activation of Caspase-6, Caspase-8, and myosin phosphatases but promotes the activation of MMP2 and MMP9. ARK5 overexpression in several cancers contributes to increased tumor progression and aggressiveness. ARK5 contains one catalytic domain (aa 65-306), and a short isoform of the human protein is prematurely truncated within this domain. Within aa 311-462, human ARK5 shares 88% and 85% aa sequence identity with mouse and rat ARK5, respectively.